

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Library Philosophy and Practice (e-journal)

Libraries at University of Nebraska-Lincoln

11-11-2020

HALAL VALUE CHAIN: A BIBLIOMETRIC REVIEW USING R

Muhammad Syafii Antonio
Tazkia Islamic University College

Aam Rusydiana
aamsmart@gmail.com

Nisful Laila
Airlangga University, Indonesia

Yayat Rahmat Hidayat
Universitas Islam Bandung

Lina Marlina
Siliwangi University

Follow this and additional works at: <https://digitalcommons.unl.edu/libphilprac>



Part of the [Business Administration, Management, and Operations Commons](#), and the [Library and Information Science Commons](#)

Antonio, Muhammad Syafii; Rusydiana, Aam; Laila, Nisful; Hidayat, Yayat Rahmat; and Marlina, Lina, "HALAL VALUE CHAIN: A BIBLIOMETRIC REVIEW USING R" (2020). *Library Philosophy and Practice (e-journal)*. 4606.

<https://digitalcommons.unl.edu/libphilprac/4606>

HALAL VALUE CHAIN: A BIBLIOMETRIC REVIEW USING R

Muhammad Syafii Antonio¹, Aam S. Rusydiana², Nisful Laila^{3*}, Yayat R. Hidayat⁴, Lina Marlina⁵

¹ Tazkia Islamic University College, Indonesia

² Researcher at Sharia Economics Applied Research and Training (SMART) Indonesia

³ Faculty of Economic and Business, Airlangga University, Indonesia. *Email: nisful.laila@feb.unair.ac.id

⁴ Faculty of Shariah, Universitas Islam Bandung, Indonesia

⁵ Faculty of Islamic Studies, Siliwangi University, Indonesia

Abstract

This study aims to determine the development and trend map of Halal Value Chain (HVC) outbreak research that is published by a reputable journal in the theme of Islamic economics and finance. The data analyzed were more than 163 publications of indexed research publications. The export data is then processed and analyzed using the R Biblioshiny application program to find out the bibliometric map of the development of the role of Islamic economics and finance in the Halal Value Chain. The results showed that the number of publications on the development of the role of Islamic economics and finance research experienced a significant increase. The results show that the highest number of document types are journaling articles. The most popular authors are Tieman M, and the most popular keyword topics are halal, supply, and chain.

Keywords: *Halal Value Chain, Islamic Economics, Bibliometrics, R*

INTRODUCTION

The Muslim population in the world currently reaches 1.6 billion people or 25% of the world's total population of 7 billion. The presence of Muslims is spread throughout the world, where there are 56 Muslim majority countries with a GDP reaching 6.7 trillion dollars. However, the overall potential of Muslim consumers can be seen from the aspect of global Muslim consumer spending in the food and lifestyle sector. Both sectors have the potential to reach 3.7 trillion dollars in 2019 (Adinugraha et al., 2019). Indonesia is the largest Muslim country in the world, with a total of 219 million people or 10% of the world's Muslim population are Indonesian Muslims (Maman et al., 2018).

The global market demand for Halal products and services has significantly driven the need for the development of a halal system since the early 2000s. The Malaysian state mapped its position in the halal industry by providing various products and services as well as facilitating the halal center for the world market (Iberahim et al., 2012). It is estimated that in the next five years the global halal market is worth the US \$ 2.3 trillion and is expected to continue to grow (Mohamed et al., 2020).

The halal industry market in Indonesia itself, especially in the halal food, travel, fashion, cosmetics and pharmaceutical sectors in 2016 has reached around 11% of the global market. Indonesia has great potential with these achievements in the development of the halal industry sector. This makes the halal industry sector in Indonesia has the potential to support national economic growth (Annisa, 2019). So, if Indonesia can develop the halal industry massively, as is done by Malaysia, then Indonesia can be in the top rank in the industrial sector and the world halal market (Nadhira, 2020).

According to the 2017 Global Islamic Economy Indicator data, Indonesia is in the top 10 countries with the largest halal industry consumers in the world. The level of spending on halal food, Indonesia ranks number one in the world. Meanwhile, for halal medicines and cosmetics as well as Islamic finance, Indonesia is ranked sixth and tenth in the world (Sulistiani, 2018). The high level of food spending and the attractiveness of consuming halal medicines and cosmetics cannot be separated from the production process in accordance with Islamic law. So that to continue to improve the quality and halalness of the products and food used, it is necessary to carry out a halal value chain. This is an effort to keep the products and food we consume halal.

There are more than 160 published scientific research papers that are the object of research both nationally and internationally in the period of writing this paper, namely September 2020. The paper that is the object of this research is a paper that discusses the halal value chain in Islamic economic and financial research. Research with this theme is interesting to do considering that the halal value chain is currently being used as scientific research to produce ideas and innovations that can answer problems in Islamic economic and financial research.

LITERATURE REVIEW

Halal is an Arabic word which means, allowed while the opposite from halal is Haram which translates to something that is prohibited. The halal practice applies to all aspects and activities

of a Muslim, but it is more than just a religious obligation (Talib et al., 2015; Tieman, 2019). The term Halal is usually closely related to matters of difference only. However, in Islam, halal includes deeds and work or commonly referred to as Muamalah (Waharini & Purwantini, 2018).

Halal Value Chain (HVC) is an integrated industry effort from the input, production, distribution, marketing and consumption. In producing halal products, it is necessary to pay attention to the inputs (raw materials) used as well as the processing technology used. Meanwhile, from the packaging side, the packaging also reflects cleanliness and halalness is maintained until the final product is accepted by Muslim consumers (Subianto, 2018).

METHODOLOGY

Bibliometric mapping is a research topic in the bibliometric field (Borner et al., 2003). Two bibliometric aspects that can be distinguished are the bibliometric map construction and the graphical representation of the map. In the bibliometric literature, the greatest concern has been with the construction of bibliometric maps. Research is related to the effect of differences in size similarity (Ahlgren et al., 2003), and they were tested by different mapping techniques (Boyack et al., 2005).

The graphical representation of the bibliometric received less attention. Although some researchers seriously study problems related to graphic representation (Chen, 2003). Most of the articles published in the bibliometric literature rely on simple graphical representations provided by computer programs. This research uses publication data in the form of papers sourced from various scientific journals and other sources with the theme of research on halal value chain applications in Islamic economic and financial research. From the search results, 163 articles were published.

RESULTS AND DISCUSSION

Source

The following is a table showing a collection of documents used in research with the theme of the halal value chain in Islamic economic and financial research. The number of documents used is 163 which are divided into 5 types of documents, including journal articles (128 documents), book chapters (19 documents), monographs (1 document), preprint design (2 documents) and proceedings (13 documents).

Table 1: Document Types

No	Document Types	Number of Articles
1	Journal article	128
2	Book chapter	19
3	Monograph	1
4	Preprint	2
5	Proceeding	13
	TOTAL	163

Based on the results of the grouping of document types above, the type of document that is most widely used as a research subject for the TSR theme is a document in the form of a journal article with a percentage of 78.5% or as many as 128 documents. Meanwhile, the least document used was in the form of a monograph document of 0.6% or as much as 1 document. This shows that the references used are quite valid because most of them come from documents in the form of scientific articles.

Average Citation per Year

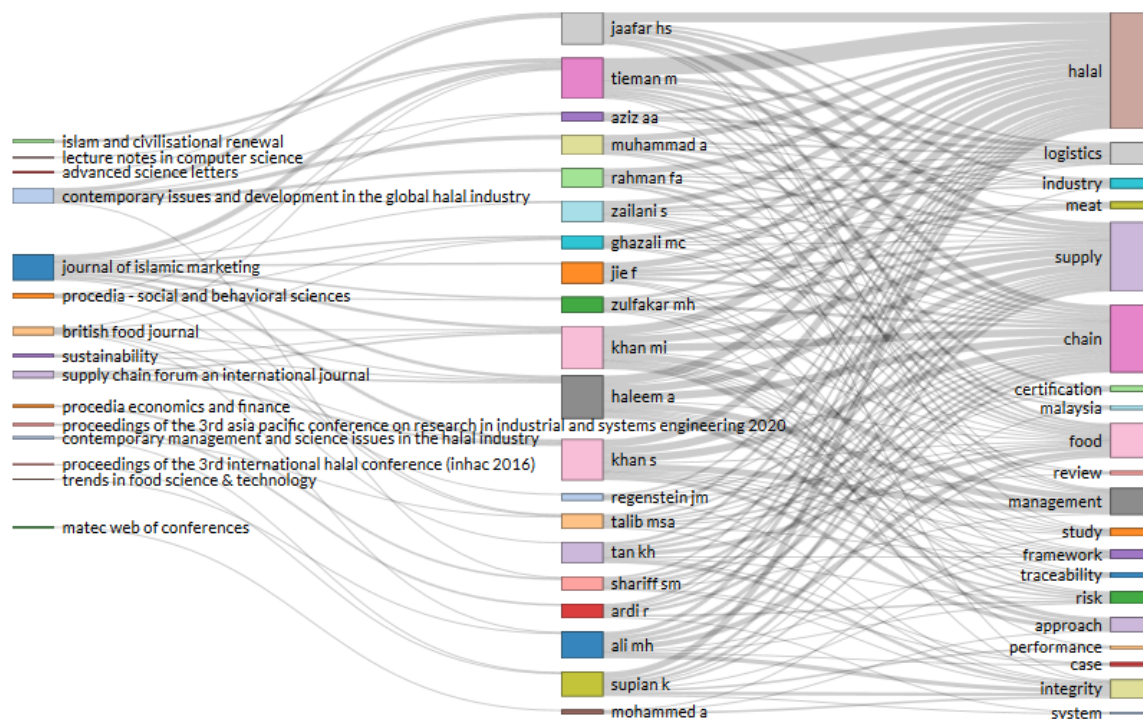
Furthermore, research is also carried out based on the average citations in papers related to the halal value chain theme in Islamic economic and financial research, both on average per year and article. The time span of the research carried out in this theme was published for 30 years from 2008 to 2020. From the following table, it is known that the most published papers related to the TSR theme in Islamic economic and financial research were mostly published in 2018 with the number of publications. as many as 29 documents. However, this does not rule out that in 2020 there could be an increase in the number of studies conducted from the previous year.

Then, based on the average total citation for each article the highest occurred in 2010 with an average of 35 citations. Meanwhile, for the average annual citation, the study with the highest citation occurred in 2011 at 3.77. This shows that papers published in 2010 were cited more than any other year in the theme of the halal value chain.

Table 2: Total Citations

Year	N	Mean TC per Article	Mean TC per Year	Citable Years
2008	1	28.00	2.33	12
2009	2	33.00	3.00	11
2010	2	35.00	3.50	10
2011	5	34.00	3.77	9
2012	6	27.50	3.43	8
2013	7	16.00	2.28	7
2014	11	19.45	3.24	6
2015	9	12.55	2.51	5
2016	23	3.47	0.87	4
2017	19	10.10	3.37	3
2018	29	4.14	2.07	2
2019	27	2.26	2.26	1
2020	22	0.14		0
Total	163			

Three Fields Plot



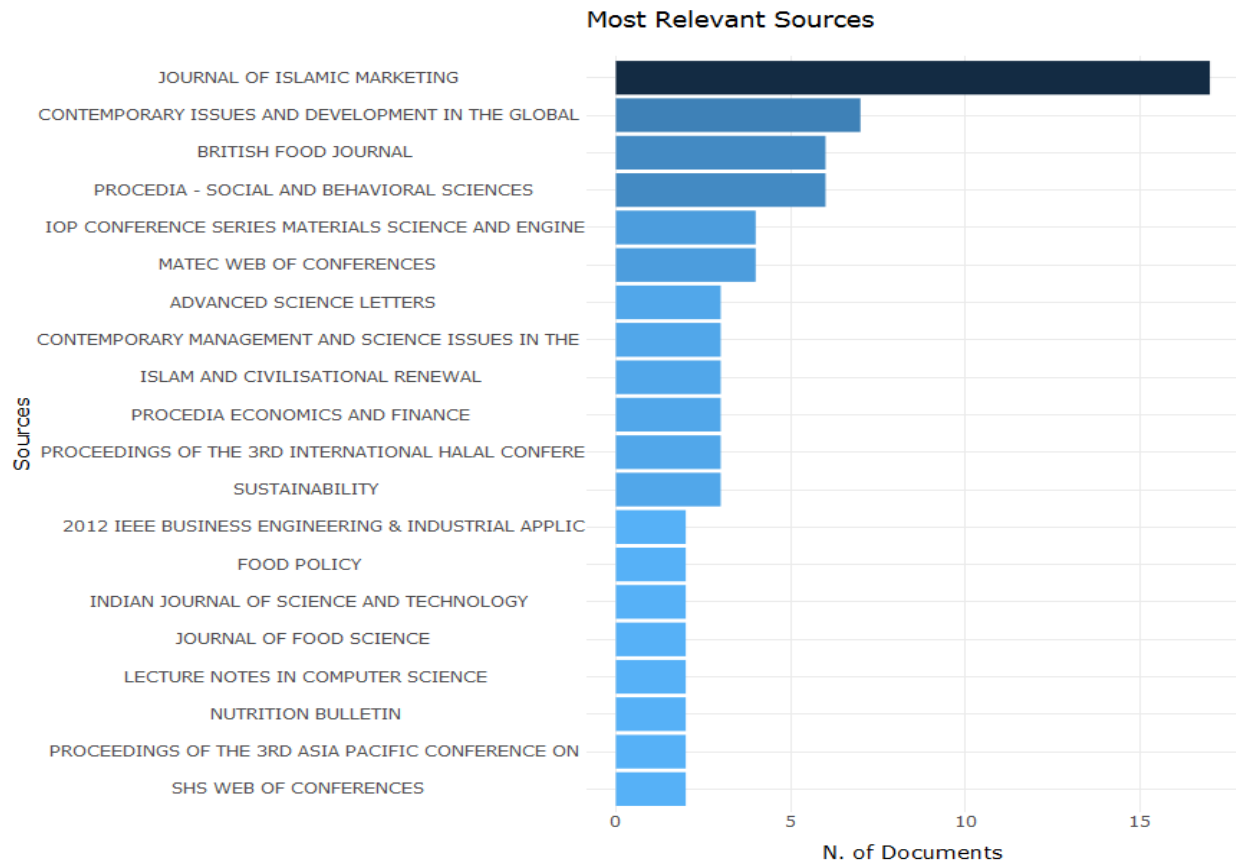
The Three Fields Plot image above is a picture consisting of 3 elements in it, namely, the name of the publication journal, a list of authors' names and the themes/topics used. The three elements are connected by a gray plot which is related to one another. Starting from the name of the journal, then each journal shows the authors who often contribute to their publications, then each writer shows the topics they often use for research conducted with the theme of the halal value chain in Islamic economic and financial research. The size of the rectangle illustrates the large number of publications associated with each of these elements.

From the picture above, it is known that in the first element, there are 15 journals indexed in the Three Fields Plot that publish the paper on the halal value chain theme. The top journal that publishes the highest number of papers with the theme of the halal value chain in Islamic economic and financial research in the Journal of Islamic Marketing which is depicted with a dark blue rectangle connected to several authors, namely Tieman M, Ghazali MC, Khan MI, Haleem A and Khan S.

Next, go to the second element in the middle of the image, which shows the author's name. Where there are several authors connected to previous journals such as Mohameed A which is linked to the Matec Web of Conferences. Besides, the author will also be associated with topic keywords that are often used on the right of the image. Where in this study there were 20 top researchers enrolled in this plot. The size of the rectangle indicates the respective quantity of research publications from each author. As for this research, the authors mostly publish the theme of the halal value chain in Islamic economic and financial research, namely Tieman M, Khan MI, Haleem A and Khan S which are depicted by pink and gray rectangles.

Finally, the third element that describes the research topic which is on the right side of the picture. Each topic is connected with writers who write a lot on related topics. From the results of the image, there are 20 keyword topics listed. Of all the topics that appear, the word halal is a word that often appears marked with a brown rectangle. Meanwhile, the words supply and chain are in second and third positions which are often used by almost all authors. This illustrates that the word Islam or halal itself is closely related to research on the theme of the halal value chain in Islamic economic and financial research.

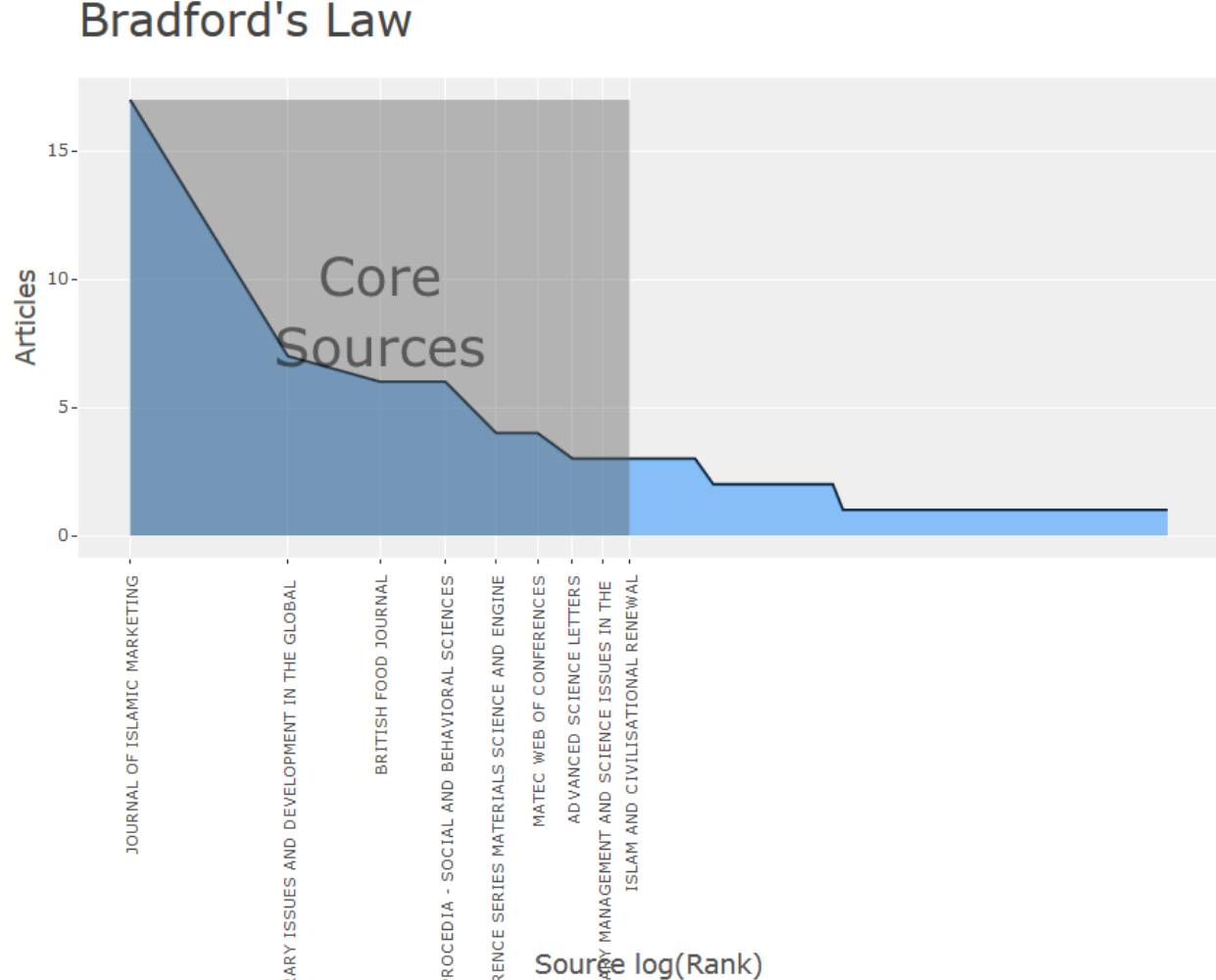
Figure 1: Most Relevant Sources



Then, the picture above shows the number of research documents published by each journal based on the level of relevance to the halal value chain theme in Islamic economic and financial research. The data shows a list of the names of the top journals published and the interval for the number of documents published with a blue bar chart. The darker the blue color shows the more quantity and relevance of the research theme, the number of documents published by all journals ranges from 0 to 15 documents.

Journal of Islamic Marketing is a journal that is in the top position with the number of published documents of more than 15 documents shown in a dark blue bar chart compared to the bars of other journals. This is because the journal is relevant to the theme discussed. Meanwhile, for the journals that are in the lowest position with the number of publications 2, there are 8 journals

Figure 2: Bradford's Law



Based on this picture, it shows that the journal with the highest publication quantity is more than 15 research documents, namely the Journal of Islamic Marketing. Furthermore, in the second position there are Contemporary Issues and Development in the Global with several publications of more than 5 but under 10 research documents and followed by other journals that are included in the category of core journals with the theme of the halal value chain in Islamic economic and financial research.

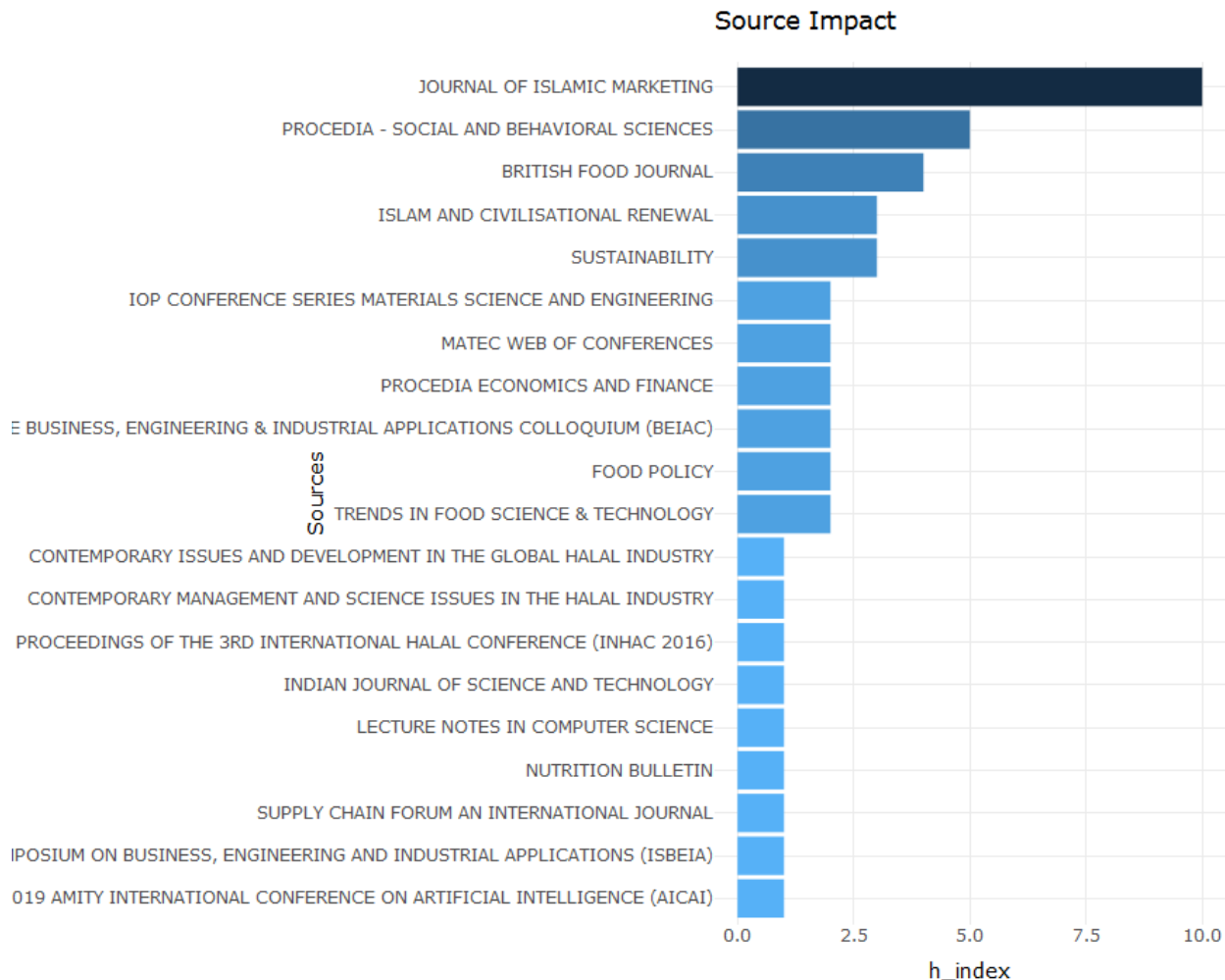
Table 3: Most Cited Articles

NO	TITLE	SOURCE	CITED*	C/Y
1	The application of Halal in supply chain management: in-depth interviews	Tieman (2011)	320	32.0
2	Principles in halal supply chain management	Tieman et al. (2012)	219	24.3
3	Positioning Malaysia as Halal-Hub: Integration Role of Supply Chain Strategy and Halal Assurance System	Nik Muhammad et al. (2009)	188	15.7
4	Halal assurance in food supply chains: Verification of halal certificates using audits and laboratory analysis	Van der Spiegel et al. (2012)	149	16.6
5	Halal Traceability and Halal Tracking Systems in Strengthening Halal Food Supply Chain for Food Industry in Malaysia: A Review	Zailani et al. (2010)	144	13.1
6	Conceptual Framework on Halal Food Supply Chain Integrity Enhancement	Zulfakar et al. (2014)	141	20.1
7	Halal Supply Chain in the Food Industry: A Conceptual Model	Omar & Jaafar (2011)	110	11.0
8	Consumer perception on halal meat logistics	Tieman et al. (2013)	103	12.9
9	Principles in halal purchasing	Tieman & Ghazali (2013)	95	11.9
10	Halal Control Activities and Assurance Activities in Halal Food Logistics	Tieman & Ghazali (2014)	88	12.6
11	Halal integrity in the food supply chain	Soon et al. (2017)	85	21.3
12	Halal Cluster	Tieman (2015)	80	13.3
13	Lean supply chain practices in the Halal food	Manzouri et al. (2013)	78	9.8
14	Adoption of Halal Supply Chain among Malaysian Halal Manufacturers: An Exploratory Study	Ngah et al. (2014)	70	10.0
15	Increasing Production and Eliminating Waste through Lean Tools and Techniques for Halal Food Companies	Manzouri et al. (2014)	66	9.4
16	Awareness and Demand for 100% Halal Supply Chain Meat Products	Alqudsi (2014)	61	8.7
17	Strategic Approach to Halal Certification System: An Ecosystem Perspective	Noordin et al. (2014)	60	8.6
18	Halal supply chain critical success factors: a literature review	Talib et al. (2015)	59	9.8
19	A supply chain integrity framework for halal food	Ali et al. (2017)	57	14.3
20	Halal logistics opportunities and challenges	Zailani et al. (2017)	54	13.5

*Data based on Google Scholar on September 5, 2020.

In addition, this study classifies several studies based on papers that are widely cited/quoted with the annual average of the papers being cited. Based on the table above, the research paper with the theme of the most widely quoted halal value chain is "The application of Halal in supply chain management: in-depth interviews" with 320 citations. The average paper is cited 32 times per year. In addition, 2 other papers are widely cited in research with this theme, namely "Principles in halal supply chain management" and "Positioning Malaysia as Halal-Hub: Integration Role of Supply Chain Strategy and Halal Assurance System" with 219 citations for each. and 188 citations.

Figure 3: Source Impact

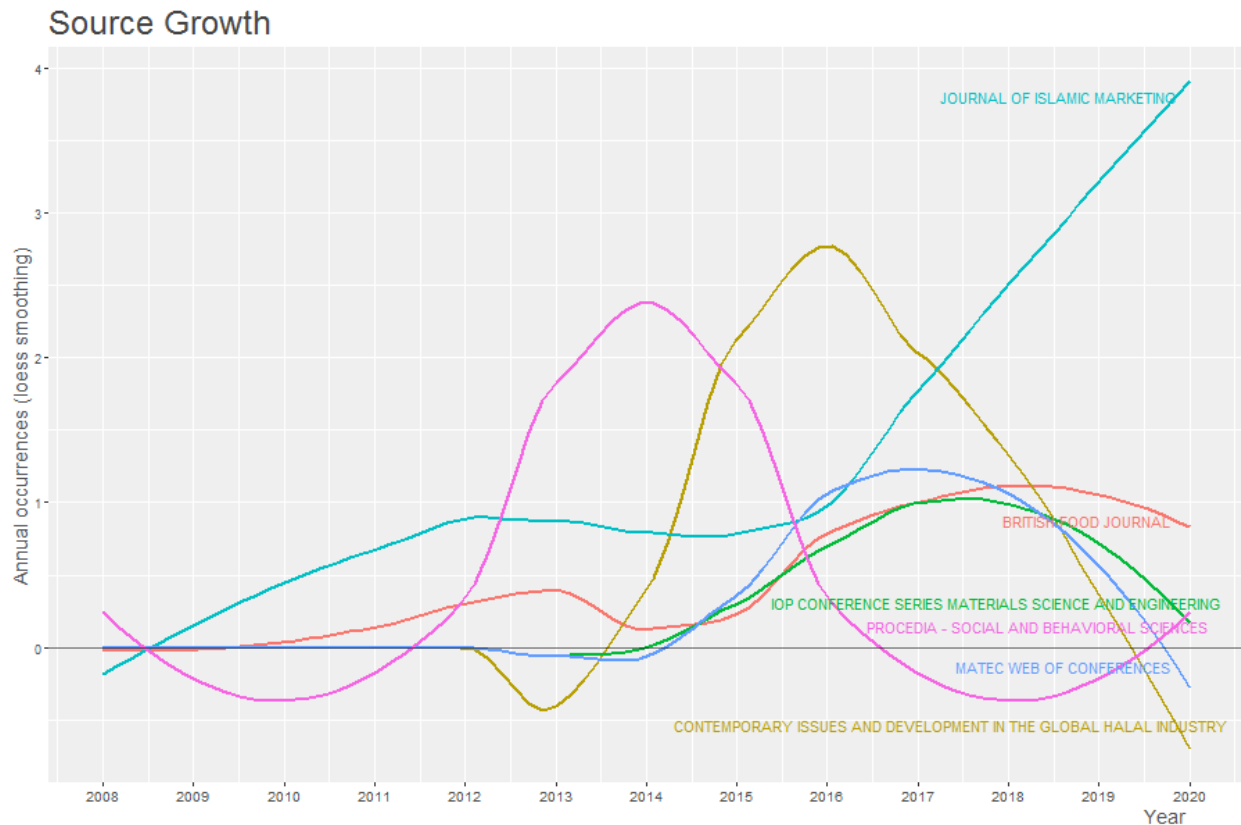


Journal calculations are not only made based on the quantity produced or its relevance. However, this research is also carried out based on the impact of each journal that publishes a paper with the theme of the halal value chain by calculating the journal's h-index which is depicted in a blue bar chart. In addition to showing the h-Index value obtained, the diagram above also illustrates the impact produced by the journal through the blue color shown. The darker the blue on the diagram, the greater the impact the journal will have.

From the data above, it shows that the Journal of Islamic Marketing is in the top position with an h-Index of 10 marked in dark blue. Meanwhile, in the second and third positions are Procedia-Social and Behavioral Science and the British Food Journal with h-Index values of 5 and 4. As for

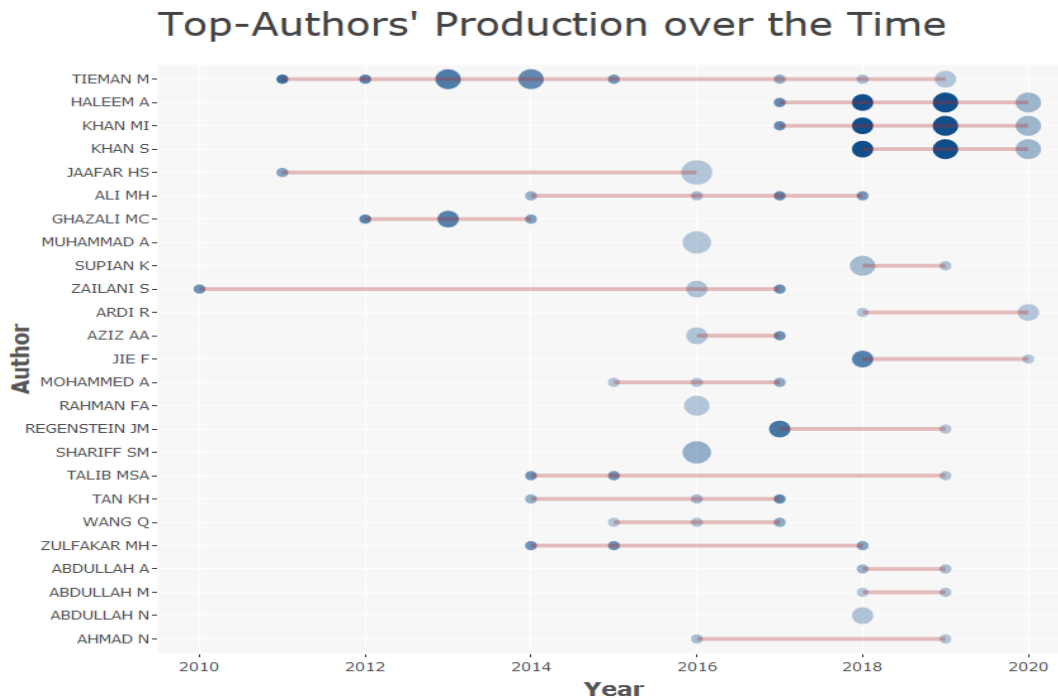
the journals with h-Index 1, there are 9 journals marked in bright blue on the diagram, which indicates the low impact of the journal.

Figure 4: Source Growth



This study also discusses the development of journals that are a source of research on the halal value chain theme in Islamic economic and financial research. The curve above shows the development of the annual occurrence of each journal from 2008 to 2020. Where the curve illustrates that research with the theme of the halal value chain in Islamic economic and financial research tends to fluctuate in its publication. From the curve above, it also shows that several journals began to experience development since 2011 and continued to increase even though in several years they had decreased, such as Procedia-Social and Behavioral Sciences and the Journal of Islamic Marketing. Meanwhile, other papers that experienced a drastic decline in 2020 to 0, namely Contemporary Issued and Development in the Global Halal Industry and Matec Web of Conferences.

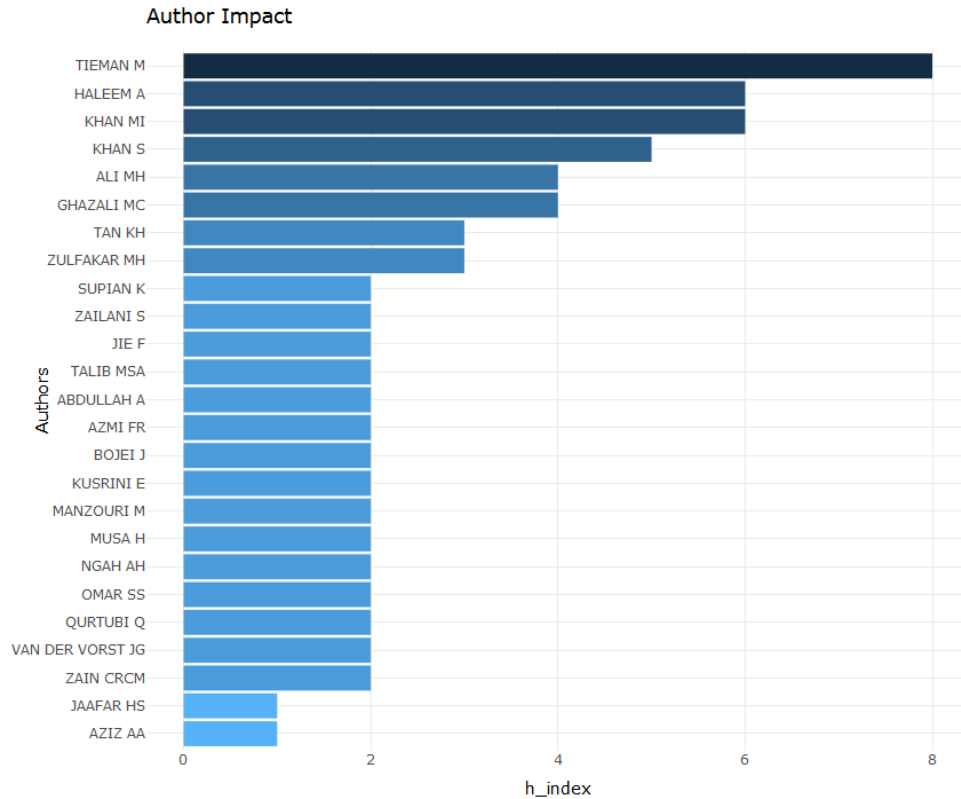
Figure 5: Top Authors' Production Over the Time



Besides, productivity can not only be measured in journals but specifically for the author. Where in the picture above shows the productivity of some of the top authors during the period of the study, namely from 2010 to 2020. This productivity is shown by a red line from the time the author published his research until the last year the author published his research. In addition, the circle in the red line shows the number of papers issued according to the applicable year.

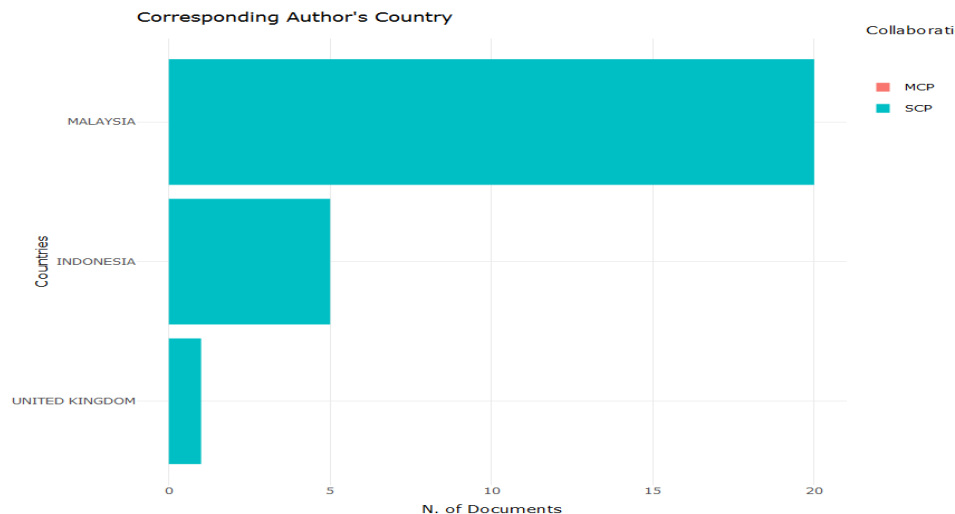
The picture above presents an overview of the author who has written research related to the halal value chain in Islamic economic and financial research for a long time or recently. The author who has long been conducting research publications related to the halal value chain in Islamic economic and financial research, namely Tieman M from 2011 to 2019, has been productively writing which has increased every year. Also, the writer who has a long track record is occupied by Zailani S who wrote from 2010 to 2017, Jaafar HS from 2011 to 2016 and Ali MH who wrote from 2014 to 2016.

Figure 6: Author Impact



Authors who have published their papers can also be sorted based on the resulting impact based on the h-Index. My h-index values range from 0 to 8. The magnitude of my impact is marked in dark blue in the bar chart above. Wherefrom the picture above shows that the author with the highest h-Index obtained by Tieman M with the achievement of number 8 is marked with a dark blue bar chart color that describes the maximum impact. Then followed by two other authors with an h-Index value of 6 with a fairly good impact, namely Haleem A and Khan MI. Meanwhile, the 2 lowest authors obtained the h-Index 1 and the lower level of impact, namely Jaafar HS and Aziz AA.

Figure 7: Corresponding Author's Country

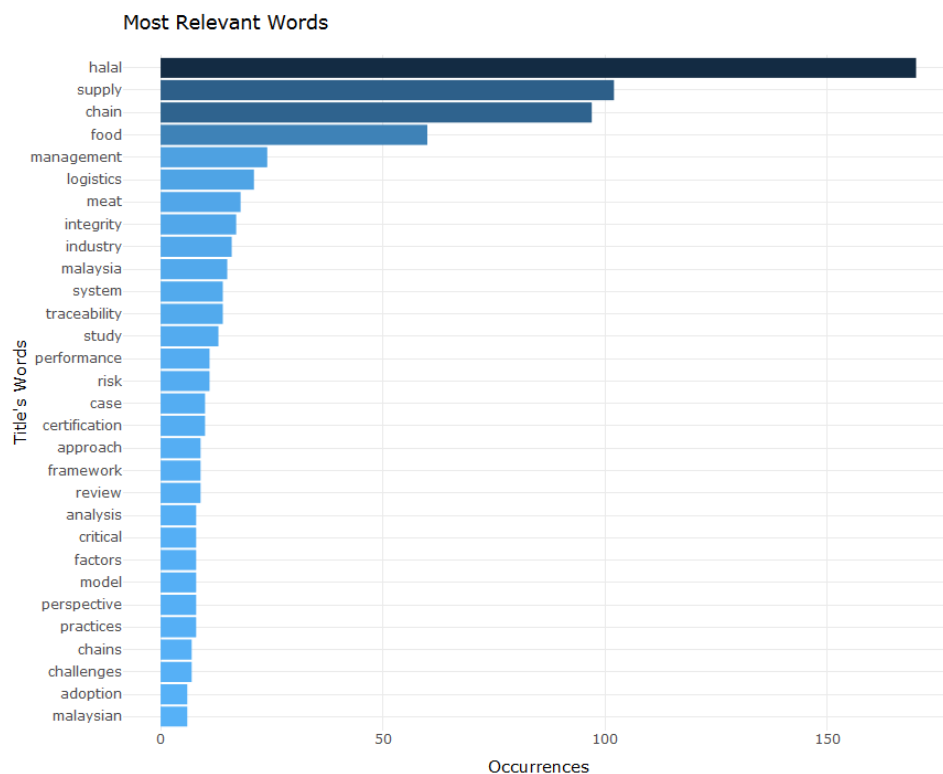


The picture above shows the author's correspondence countries contained in each article with the calculation of the total form of collaboration between SCP (single country collaboration) or one country collaboration, not MCP (multiple country collaboration) or collaboration between several countries. There are 3 top countries included in this data and the document quantity interval is between 0 and more than 20 published paper documents with the halal value chain theme.

The results obtained are that Malaysia is ranked first as a country with the highest quantity of author correspondence with more than 20 published papers. Furthermore, the second rank is Indonesia with the number of published papers less than 5 papers. Finally, the United Kingdom with the number of published papers below 5.

This data shows that there is a need for an increase in the number of paper publications on the theme of the halal value chain in other countries, especially Indonesia, to research better new ideas and innovations for the development of domestic halal value chain management so that the hope is to produce better output.

Figure 8: Most Relevant Words



This study also counts the relevant words used in the collection of documents that are the object of the study, where there are several words with several occurrences ranging from 0 to more than 150 times. The top 30 words listed which are marked with a blue diagram show the comparison of the number of occurrences of each word usage and its relevance to the halal value chain theme in Islamic economic and financial research.

The top word with the highest number of occurrences and the most relevant to the research theme is the word halal with a total usage of more than 150 times and the most relevant which is shown in the dark blue diagram. This illustrates that the theme of the halal value chain research is closely

related to the word halal which often appears in research with this theme. Furthermore, in second place is the word supply with an occurrence quantity of more than 100 times. Then in the third sequence with a quantity approaching 100.

Figure 9: Word Cloud



Figure 10: Word Tree Map

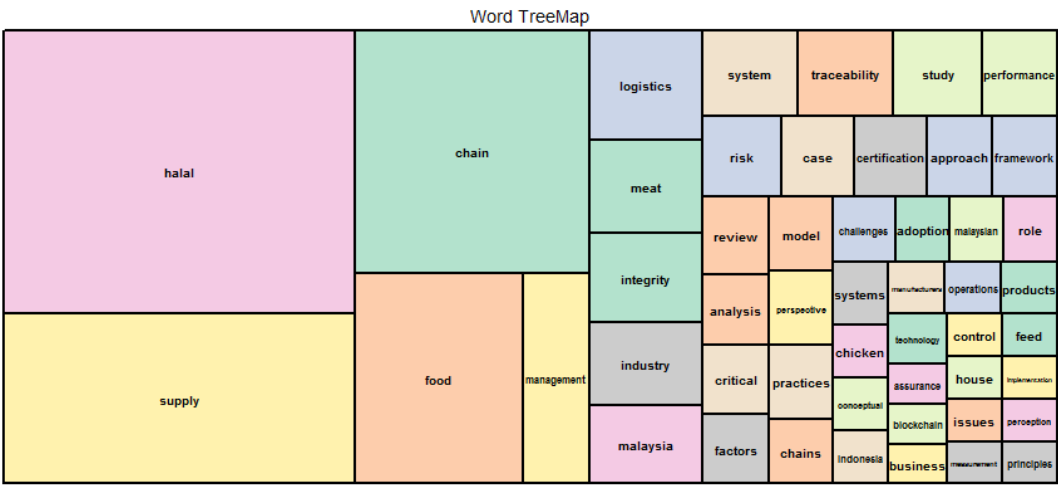
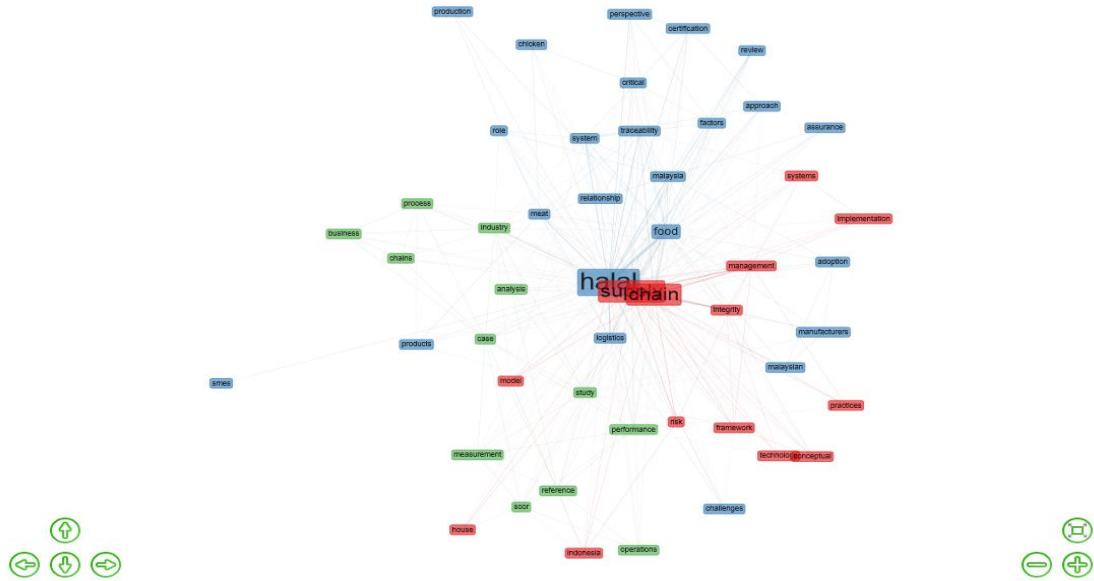


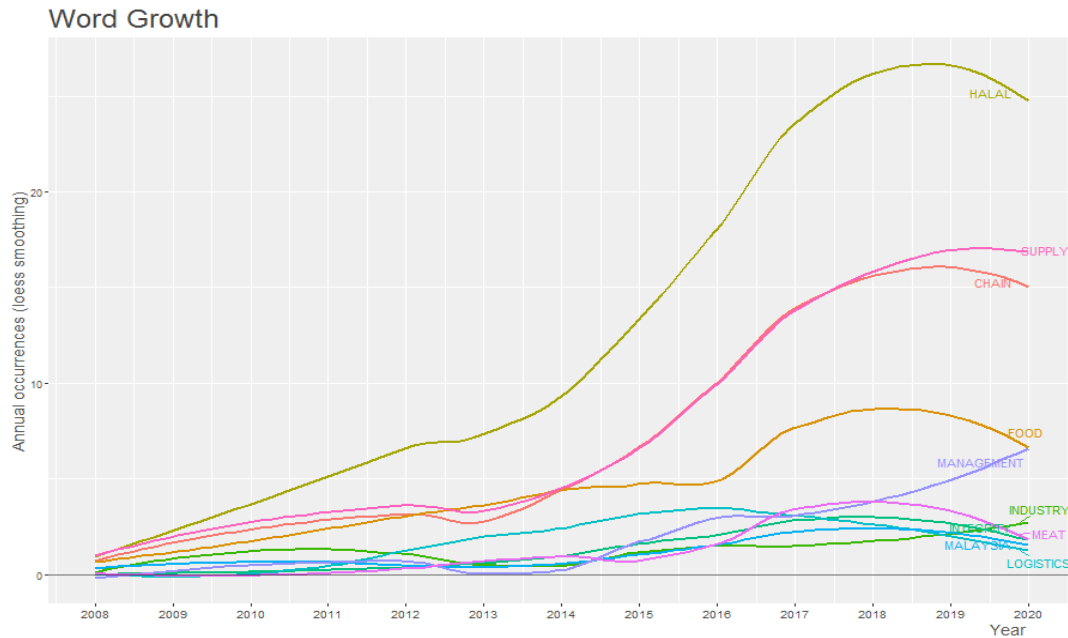
Figure 11: Word Clustering



The Word Tree Map, Word Cloud and Clustering above are descriptions of the words that often appear in data collections of papers that are researched on the theme of the halal value chain in Islamic economic and financial research in different forms. However, we got the same result, namely the word that often appears in the first order of halal. Then in the second and third places, there are the words supply and chain.

The Word cloud displays an overview of words with various sizes according to the quantity of the number of words appearing. In terms of placement, the word cloud tends to be random, but the dominating words are placed in the middle so that they are more visible with their large size. While the Word Tree Map displays words that often appear in boxes similar to regions on the map, where the more words appear, the larger the square area. The clustering displays the words in the form of colored clusters by considering the relationship between one word and another.

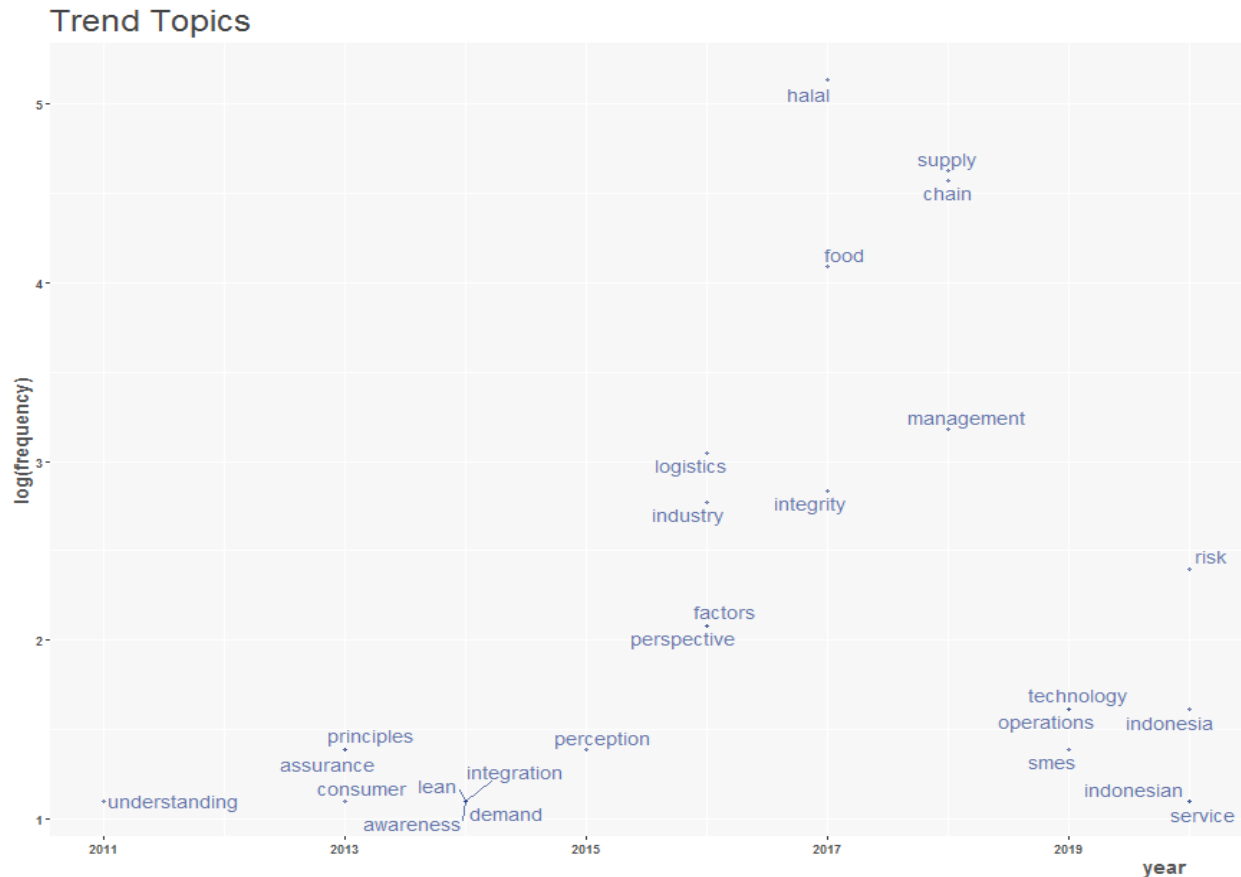
Figure 12: Word Growth



In this study, the words that often appear are also translated into a development curve each year with the value of annual occurrence. Where these results indicate the average number of occurrences of the word in the data collection studied in the halal value chain theme in Islamic economic and financial research per year. The picture above shows that the majority of words that often appear have started to develop and are used since 2013 which tends to increase.

The highest increase was achieved by the word halal in 2017, with the annual occurrence value increasing every year but decreasing in 2020. The increase also occurred in the word supply and chain in 2018 but decreased in 2020.

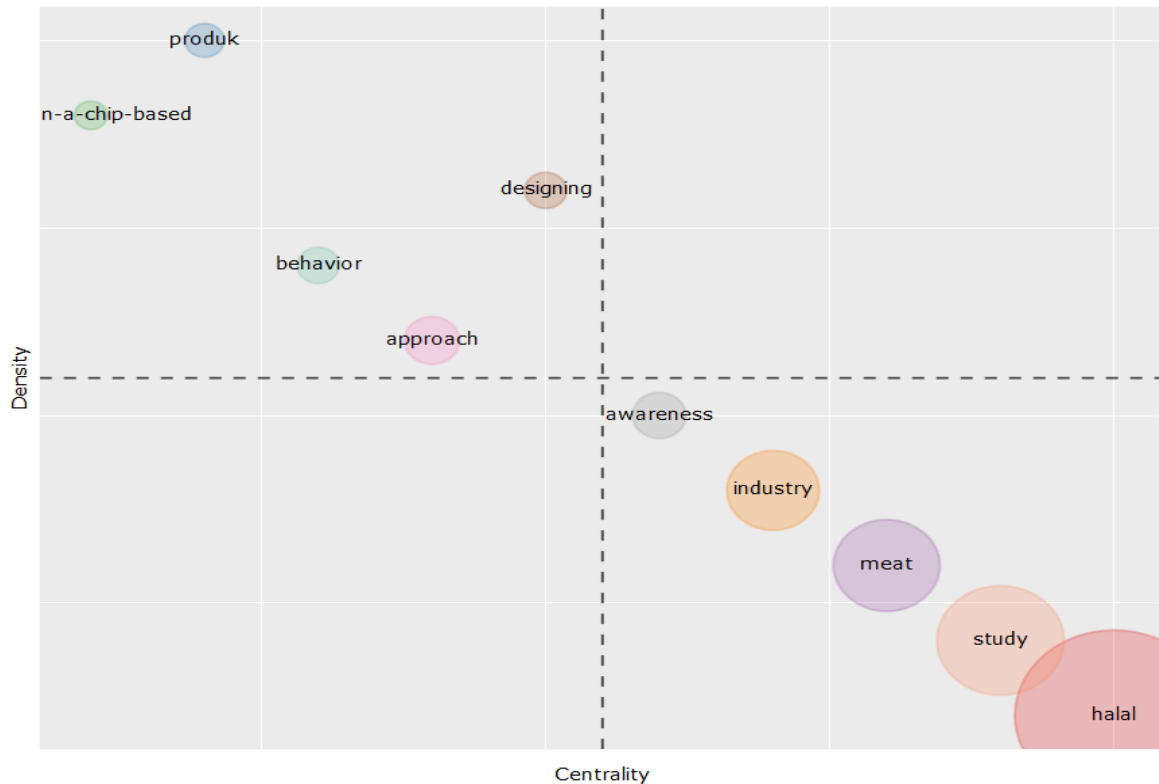
Figure 13: Trend Topic



Topic trends are also part of this research, where the picture above shows an overview of the development of the topic from time to time with the division per year. So that it is known what topics have been used for a long time and what topics have been used recently. The emergence of the topic is also adjusted to the frequency of the word's appearance in research on the theme of the halal value chain in Islamic economic and financial research. The higher the more the word is used and the more to the right the more recent the word is used. The development of the topic began to experience a significant increase since 2013.

Based on the description of the data above, the topic has been used since 2011 understanding, especially those related to the halal value chain theme in Islamic economic and financial research. Furthermore, in 2013 the topic of principles, assurance and consumers began to emerge. Even though it has been a long time, the quantity of the three topics that have emerged under 2010 is still small. The topics that are widely used in 2020 include risk, Indonesia and service with different quantities. where the service topic is at least under the Indonesian topic.

Figure 14: Thematic Map

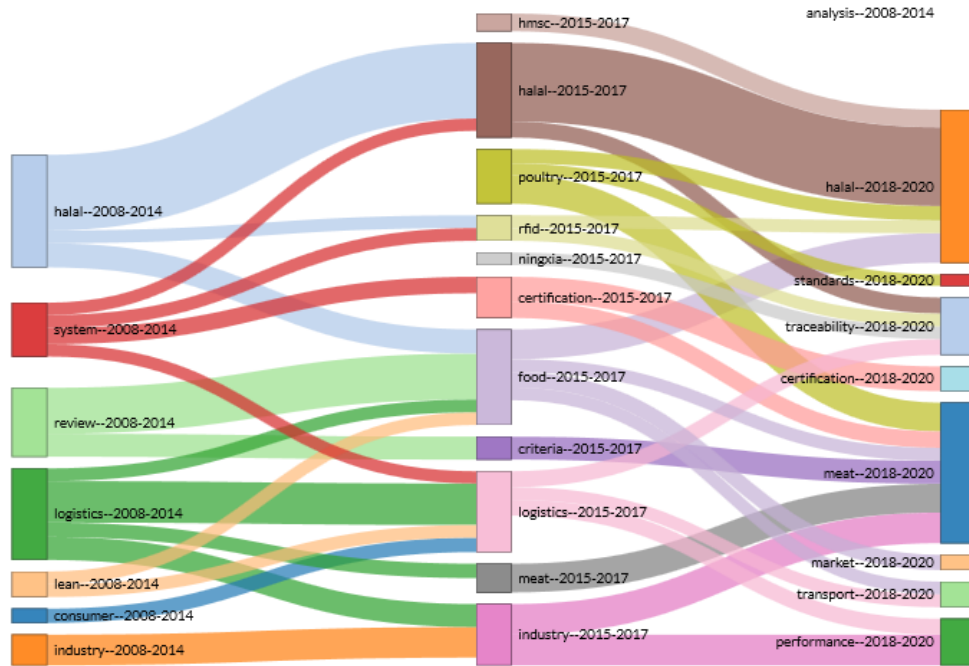


In this study, an analysis of thematic maps was also carried out based on density and centrality which were divided into 4 theme quadrants as shown above. These results were obtained from a semi-automatic algorithm by reviewing the titles of all references to the research object with the addition of relevant keywords other than the author's keywords. So that the results can capture deeper variations.

The upper right quadrant is a driving theme characterized by high density and centrality, so it needs to be developed and it is important to be studied in further research. However, in this quadrant, there is no captured theme. Furthermore, the upper left quadrant shows a specific and rare theme but has a high development, which is indicated by high density but low centrality. The themes in this quadrant include product, chain-a-chip-based, designing, behavior and approach.

Furthermore, in the lower-left quadrant are themes that have been used for a long time but have experienced a downward trend with marked low centrality, but in this quadrant, no themes were detected. Finally, the lower right quadrant is a basic theme characterized by high centrality but low density. These themes are important to be included in the research because they are general topics that are commonly used, including the themes of awareness, industry, meat, study and halal.

Figure 15: Thematic Evolution

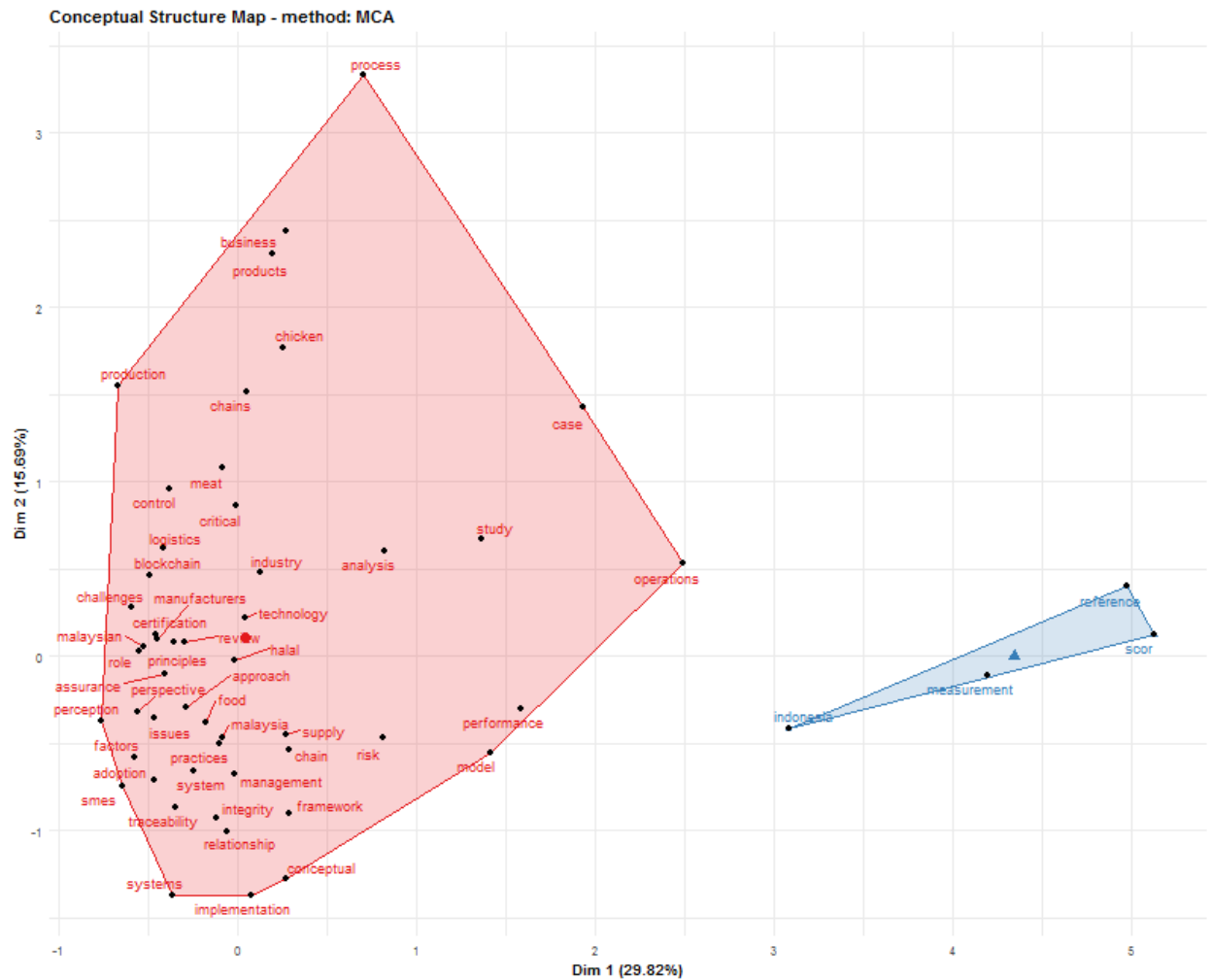


The themes used in papers that are the object of research continue to change, especially from papers that have recently been published when compared to papers that have been published for a long time. The evolution of the theme is shown in the image above. Although the theme of this research is the halal value chain, this data shows several sub-themes that are widely used. The left side shows some of the themes that are widely used from 2008 to 2014, there are 7 themes listed with different sizes depending on the quantity of use of the theme. The theme "halal" took first place, followed by the theme "logistics" and "review".

The second part of the middle section shows several themes that were widely used from 2015 to 2017. Some of the themes that emerged during this period were an evolution from the previously used themes and had a connection in their content, for example, the theme 'food' emerged as a form of revolution from the theme 'halal', 'review', 'logistics' and 'lean', this shows that research using the extension theme is an extension of the halal theme research, review, logistics and lean in previous research. In this section, the most widely used themes are halal, food and logistics.

The third or right part shows the most recently used themes in the period between 2018 and 2020. There are 8 listed themes, of which 3 themes are an evolution of the themes that appeared in the previous period, namely the theme 'halal, traceability, meat' which is an extension of several themes as indicated by the colorful grooves.

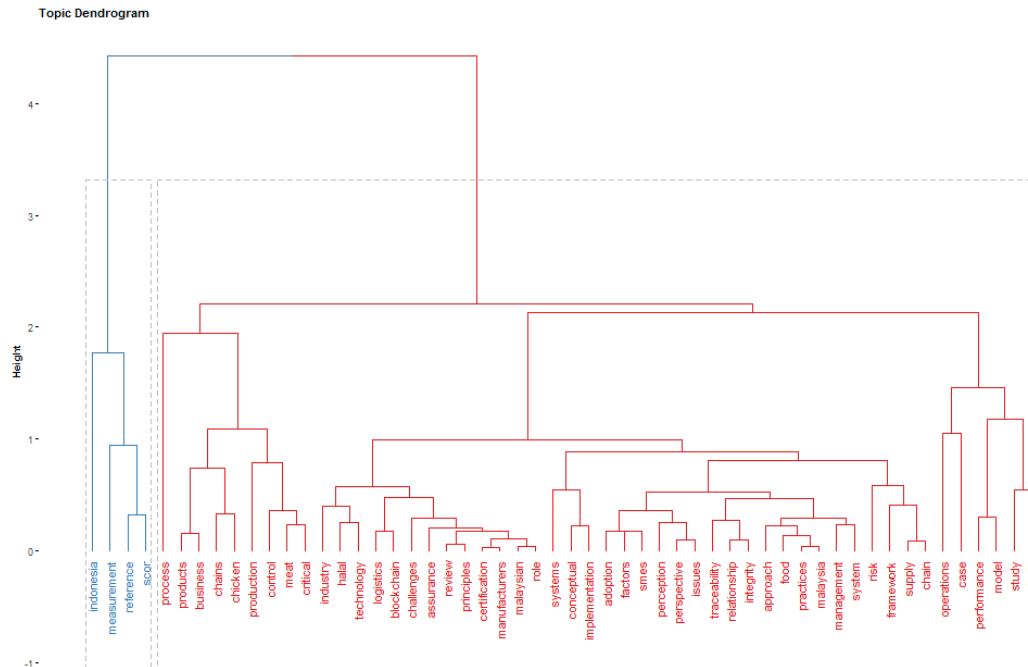
Figure 16: Conceptual Structure Map



This study also describes the conceptual structure map or contextual structure map of each word that often appears in research papers on the halal value chain theme by dividing it based on mapping the relationship between one word and another through area mapping. Each word is placed according to the values of Dim 1 and Dim 2 to produce a mapping between words whose values do not differ much.

In this data, there are 2 parts of the area which are divided, namely the red area and the blue area, each area contains words that are related to each other. Based on the picture above, the red area shows more and more various words included in it, this shows that many research papers link between the words listed in this area.

Figure 17: Topic Dendrogram



Next is a dendrogram tree diagram showing the most widely used topics and their relation to other topics as well as a classification of these topics depicted in different colors. The representation of the dendrogram diagram is often used in a variety of contexts, for example in a hierarchy of grouping, this diagram describes the distribution of links between elements in groups resulting from software analysis. This grouping is also arranged in such a way as to consider the height of the coordination line between topics and between clusters.

This diagram shows there are 2 classifications of topics, namely topics in red and topics in blue, this shows that the relationship between topics in the deep blue classification and topics in red classification. Each of them is further divided into several clusters, each cluster is further divided into several sub-clusters, and so on until the topic used, several topics are part of one cluster, indicating there is a connection between the two in the research paper on the theme of the halal value chain in recent years.

[illegible]

The data above shows the existence of collaboration between the 11 clusters of authors, but in this study, there are 3 largest clusters. The first cluster in blue shows the collaboration between Khan MI, Khan S and Haleem A. Then the second cluster in gray shows the collaboration between Jaafar HS, Muhammad A and Rahman A. The third cluster in purple shows the collaboration between Tieman M and Ghazali MC. The authors who are not related and indexed in the data above show that there is no collaboration between the author and other authors in making papers related to the halal value chain theme.

From the overall results of the research conducted, it shows that the theme of the halal value chain research is more synonymous with the halal supply chain. This can be seen from several results which show that the words supply and chain are the most used words after the word halal. Currently, the halal supply chain is becoming an emerging form of business that is attracting global attention. This not only attracts food industry players to practice and apply the halal

concept, but other sectors such as cosmetics, pharmaceuticals, health care products, and even academics and researchers (Ahmad & Shariff, 2016).

The halal supply chain is closely related to food products. Activities and problems that are inseparable from the halal supply chain, namely the integrity of halal food (food ingredients, hygiene, safety, health, nutrition and quality), halal slaughter (the process of slaughtering poultry and meat in accordance with sharia principles), as well as halal logistics and marketing (storage, distribution and display of halal and haram products) (Yusoff et al., 2015). In this modernization era, the existence of a halal supply chain cannot be separated from the use of technology to support the halal supply chain. The use of digital in halal supply chain management will benefit greatly. Digitalization of the halal supply chain if interconnected will reduce operating costs by more than 30 percent, which can reduce lost sales opportunities by more than 60 percent, even owing to inventory requirements by more than 70 percent. This can make the company faster, more agile, detailed, accurate and efficient (Nurshafaaida et al., 2020).

Another finding in this study is that Malaysia is the country with the most correspondence in the theme of halal value chain research. In 2010, Malaysia has become the halal hub for the Southeast Asian region. This good position allows Malaysia to become a leader in the halal industry and also in setting global standards for halal certification (Osman & Aziz, 2018). Malaysia is already known as a successful halal hub in 1997 when the Codex Alimentarius Commission had Malaysia as a development model for the halal food industry when it adopted the codex general guidelines for the use of the term 'halal' in Geneva. Malaysia is seen as one of the most successful examples in the world, where only one halal standard is set in the country (Mohamed et al., 2020). Malaysia is also an example in the application and commercialization of halal standards. Where during the last three decades Malaysia has systematically in terms of certification, standards and bureaucracy, production, trade and consumption of halal (Arsil et al., 2018).

Apart from Malaysia, Indonesia is also the country with the most corresponding in the theme of halal value chain research. Indonesia is home to the world's largest Muslim population. (Arsil et al., 2018). Indonesia has the potential as the largest halal food market as well as the largest halal food producer with a wealth of natural resources (Peristiwo, 2019). In maintaining the halalness of food products, the Indonesian government establishes SNI (Indonesian National Standard) as a food quality control standard in Indonesia which is regulated in PPRI (Government Regulation of the Republic of Indonesia) Number 28 of 2004 concerning food safety, quality and nutrition. As for halal food products, the government has appointed LPPOM MUI (Institute for the Study of Food, Medicine and Cosmetics of the Indonesian Ulema Council) to provide standards for halal products according to Islamic law (Usman, 2020).

CONCLUSIONS

The study was conducted to determine the development of research on the Halal Value Chain (HVC) in Islamic economic and financial research during the period 2008 to 2020. The 163 documents used in this study indicate that research with the theme of HVC has increased every year. As for the author who often researches with HVC, namely Tieman M during the research

period he consistently researches this theme. Meanwhile, the keywords that are often used in TSR research are halal, supply and chain.

So that in the development of research on the HVC method, it is increasingly developing and inseparable from Islamic economic and financial research. Therefore, this research with the theme of HVC needs to be continuously developed considering that there is still limited research that addresses this HVC theme extensively in Islamic economic and financial research.

REFERENCES

- Adinugraha, H. H., Sartika, M., & Ulama'i, A. H. A. (2019). Halal Lifestyle Di Indonesia. *An-Nisbah: Jurnal Ekonomi Syariah*, 5(2), 57–81. <https://doi.org/10.21274/an.2019.5.2.layout>
- Ahlgren, P., Jarneving, B., & Rousseau, R. (2003). Requirements for a cocitation similarity measure, with special reference to Pearson's correlation coefficient. *Journal of the American Society for Information Science and Technology*, 54(6), 550–560. <https://doi.org/https://doi.org/10.1002/asi.10242>
- Ahmad, N., & Shariff, S. M. (2016). Supply Chain Management: Sertu Cleansing for Halal Logistics Integrity. *Procedia Economics and Finance*, 37, 418–425. [https://doi.org/10.1016/s2212-5671\(16\)30146-0](https://doi.org/10.1016/s2212-5671(16)30146-0)
- Annisa, A. A. (2019). Kopontren dan Ekosistem Halal Value Chain. *Jurnal Ilmiah Ekonomi Islam*, 5(01), 1–8. <https://doi.org/10.29040/jiei.v5i01.398>
- Arsil, P., Tey, Y. S., Brindal, M., Phua, C. U., & Liana, D. (2018). Personal values underlying halal food consumption: evidence from Indonesia and Malaysia. *British Food Journal*. <https://doi.org/10.1108/BFJ-09-2017-0519>
- Boyack, K. W., Klavans, R., & Börner, K. (2005). Mapping the backbone of science. *Scientometrics*, 64(3), 351–374. <https://doi.org/https://doi.org/10.1007/s11192-005-0255-6>
- Chen, C. (2003). Mapping the mind. *Mapping Scientific Frontiers: The Quest for Knowledge Visualization*, 67–99. https://doi.org/https://doi.org/10.1007/978-1-4471-0051-5_3
- Iberahim, H., Kamaruddin, R., & Shabudin, A. (2012). Halal development system: The institutional framework, issues and challenges for halal logistics. *ISBEIA 2012 - IEEE Symposium on Business, Engineering and Industrial Applications*, 760–765. <https://doi.org/10.1109/ISBEIA.2012.6422993>
- Maman, U., Mahbubi, A., & Jie, F. (2018). Halal risk mitigation in the Australian–Indonesian red meat supply chain. *Journal of Islamic Marketing*.
- Mohamed, Y. H., Abdul Rahim, A. R., & Ma'aram, A. (2020). The effect of halal supply chain management on halal integrity assurance for the food industry in Malaysia. *Journal of Islamic Marketing*. <https://doi.org/10.1108/JIMA-12-2018-0240>
- Nadhira, A. (2020). *Potensi Industri Halal di Indonesia*. IBEC FEBUI. <https://www.ibec-febui.com/potensi-industri-halal-di-indonesia/>

- Nurshafaaida, Rani, M., Nordin, M., Amran, A., Ibrahim, I., & Haron, H. (2020). Industrial Revolution 4 . 0 Halal Supply Chain Management : A Theoretical Framework. *International Journal of Arts Humanities and Social Sciences Studies*, 5(02), 31–36.
- Osman, L. H., & Aziz, R. S. (2018). Millennial generations' awareness of halal supply chain and related food product in Malaysia. *International Journal of Accounting, Finance and Business*, 3(12), 12–24.
- Peristiwa, H. (2019). Indonesian Halal Food Industry : Development, Opportunitie and Challenges on Halal Supply Chains. *Journal of Islamic Studies and Humanities*, 4(2), 197–224.
- Subianto, P. (2018). Rantai Nilai dan Perspektif Kesadaran Masyarakat Muslim akan Makanan Halal. *Cimae : Conference on Islamic Management Accounting and Economics*, 1, 141–146.
- Sulistiani, S. L. (2018). Analisis Maqashid Syariah Dalam Pengembangan Hukum Industri Halal di Indonesia. *Jurnal Law & Justice*, 3(2), 91–97.
- Talib, M. S. A., Hamid, A. B. A., & Zulfakar, M. H. (2015). Halal supply chain critical success factors: A literature review. *Journal Islamic Marketing*, 6(1). <https://doi.org/10.1108/EL-01-2014-0022>
- Tieman, M. (2019). Measuring corporate halal reputation: A corporate halal reputation index and research propositions. *Journal of Islamic Marketing*, 11(3), 591–601. <https://doi.org/10.1108/JIMA-05-2018-0095>
- Usman, I. (2020). Halal supply chain management practice model: A case study in evidence of halal supply chain in Indonesia. *International Journal of Innovation, Creativity and Change*, 11(11), 440–451.
- Waharini, F. M., & Purwantini, A. H. (2018). Model Pengembangan Industri Halal Food di Indonesia. *Muqtasid: Jurnal Ekonomi Dan Perbankan Syariah*, 9(1), 1–12. <https://doi.org/10.18326/muqtasid.v9i1.1-13>
- Yusoff, F. A. M., Yusof, R. N. R., & Hussin, S. R. (2015). Halal food supply chain knowledge and purchase intention. *International Journal of Economics and Management*, 9(S), 155–172.